VA BHS Spinal Cord Injury System of Care Program Outcomes: Fiscal Year 2007 – 2009*

Our Mission: To promote health, function, independence, and quality of life of veterans with SCI

Top Strategic Goals:
- Provide effective & efficient SCI rehabilitation.
- Promote patient satisfaction and patient-centered care.
- Enhance care coordination and community participation.
- Excel in SCI performance measures for health promotion and decrease secondary complications
- Promote SCI research and education

Inpatient Rehabilitation Program Outcomes

Effectiveness:

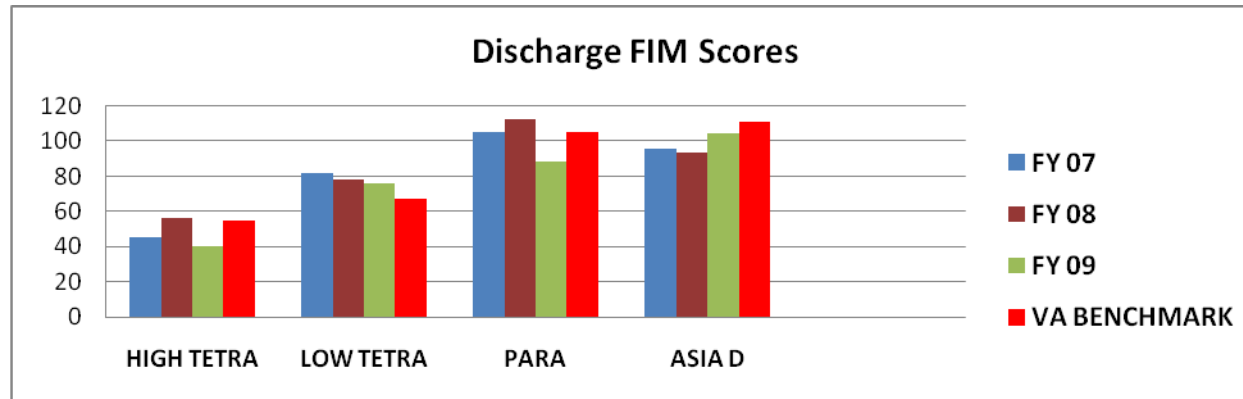1. **Functional (FIM) gain from inpatient rehabilitation admission to discharge**
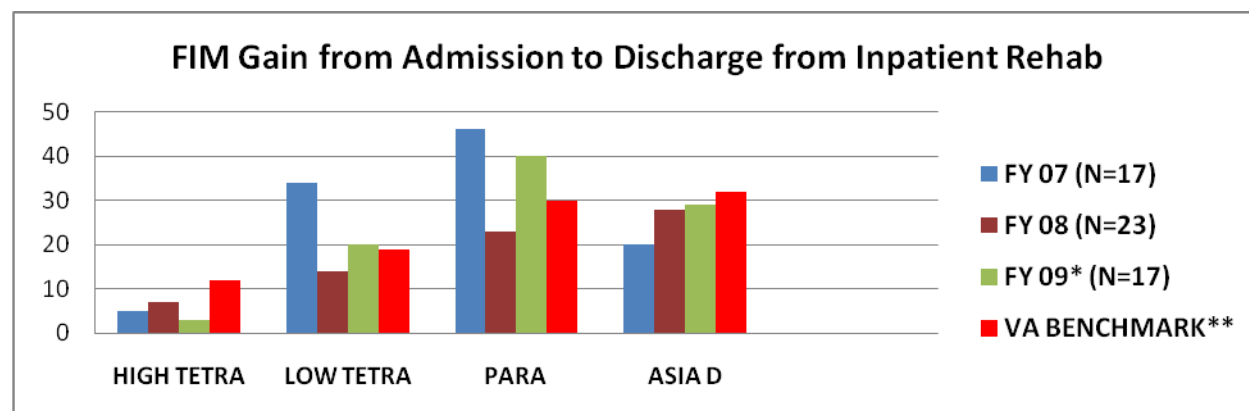
(*FY 09 data is for the first 3 quarters of the fiscal year i.e. 10/1/08 - 6/30/09, unless otherwise noted.)
(**VA Benchmark = Composite of the 6 VA SCI Centers for whom this benchmarking information is available)

- Overall, functional gain for persons served in our inpatient SCI rehabilitation program is similar to that reported by other specialized VA SCI programs
- There is some year to year variation (likely related in part to small numbers in each impairment group served in any one year so that individual differences can significantly impact the average for that group)

2. FIM score at discharge from IP rehab

- Overall persons served in our program achieve levels of function at discharge from rehabilitation comparable to that reported by other specialized VA SCI programs for different levels of injury

- Persons served in our program generally achieve expected levels of function at discharge from inpatient rehabilitation based on published SCI benchmark*** data for different levels and completeness of injury (benchmarking information from SCI Model Systems in *Consortium for Spinal Cord Medicine Clinical Practice Guidelines. "Outcomes Following Traumatic Spinal Cord Injury"* 1999)
- Data for this measure from FY07 – FY09 is combined for the 3 years due to the small numbers in each individual group when broken down by level and completeness of injury
- Small differences for individual levels/completeness of injury are probably not meaningful due to the small numbers in each individual group
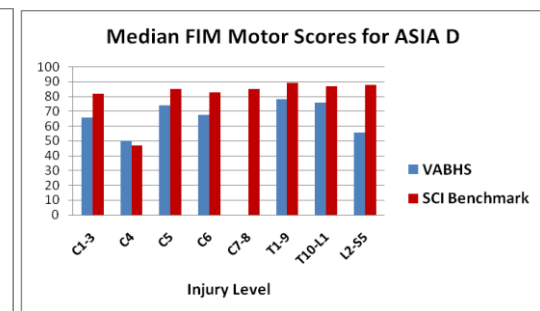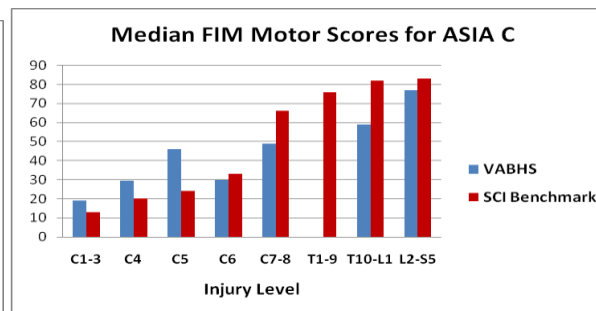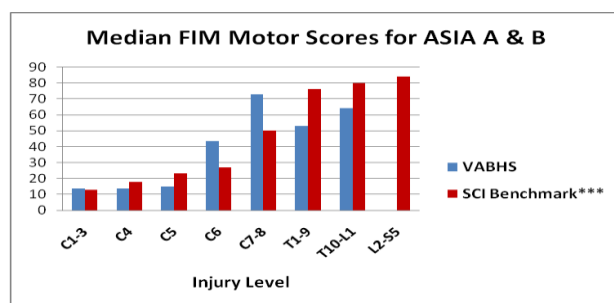
3. **Additional measures of effectiveness**

a. An additional measure of our effectiveness in achieving expected outcomes is reflected in the percent of persons served who express in a 90 day follow-up survey after discharge from inpatient rehabilitation (*follow-up conducted by MedTel Outcomes LLC*) that their progress in the rehabilitation program met their expectations.   Our goal is to be at 90% or above for this measure each year.

b. We also measure maintenance of functional gain post discharge from inpatient rehabilitation as measured by 90 day follow-up FIM scores with a goal that <10% of persons served will decline of ≥10 points from discharge FIM. We review the individual cases in which a decline in function of 10 FIM points or more is reported on 90 day FIM conducted by phone follow-up, and evaluate further as needed. In some instances the apparent decline in function reported on phone follow-up is not validated when we do a confirmatory in-person assessment

c. We measure the % of persons served who are discharged to community living (non-institutional setting) from inpatient rehabilitation with a goal of ≥ 80%. While we have missed this goal in the past 2 years, we have found that this often reflects temporary living arrangements in the immediate period post-discharge while arrangements and resources for community living are being identified. (E.g. persons served in IP rehabilitation may initially be discharged to a VA facility closer to home to facilitate coordination of local arrangements for community living.) As a result we have found a significant increase in persons served who transition to community living at 6 months post-discharge (6M DC). In fact over 90% of persons served in our SCI System of Care are ultimately able to live in the community with support from our outpatient and home-care programs (See section on post-inpatient SCI program outcomes)

Outcome Measures	Goal	FY 2007		FY 2008		FY 2009*	
Effectiveness		VABHS	Benchmark	VABHS	Benchmark	VABHS	Benchmark
a. % Persons served who express that progress in the rehab program met their expectations	≥90%	100%	90%	**83%**	90%	100% Q1 & Q2	90%
b. 3. Maintenance of functional gain post d/c as measured by 90 day follow-up FIM scores	<10% of persons served with decline of ≥10 points from discharge FIM (lower is better)	0%	10%	**43%**	10%	0%	10%
c. % Discharges to community living (non-institutional setting) from IP rehab	≥ 80%	DC 82% 6M DC NA	80%	DC **58%** 6M DC **71%**	80%	DC **55%** 6M DC **73%** Q1 & Q2	80%

Efficiency:

Outcome Measures	Goal	FY 2007		FY 2008		FY 2009*	
Efficiency							
FIM efficiency as measured by the FIM gain per day of inpatient rehab	VABHS performance ≥ VA benchmark**	Hi-Tetra **0.139** Lo-Tetra**0.363** Para 1.439 SCD 1.588	Hi-Tetra 0.296 Lo-Tetra0.511 Para 0.477 SCD 0.866	Hi-Tetra **0.231** Lo-Tetra**0.481** Para 0.622 SCD 2.375	Hi-Tetra 0.296 Lo-Tetra0.511 Para 0.477 SCD 0.866	Hi-Tetra **0.086** Lo-Tetra0.563 Para 0.787 SCD 2.489	Hi-Tetra 0.296 Lo-Tetra0.511 Para 0.477 SCD 0.866

Access:

− We have chosen inpatient SCI nurse staffing as an access measure since this had been a problematic area for us in the past with difficulty in recruiting and retaining optimal number of inpatient nursing staff. With sustained and continuing efforts to promote nursing recruitment and retention and measures to promote staff satisfaction, we have been able to meet our goals for this measure for the past 2 years.

Outcome Measures	Goal	FY 2007		FY 2008		FY 2009*	
Access							
Inpatient SCI Nurse Staffing	≥ 90% of FTEE specified in VHA SCI staffing Directive for inpatient nursing staff	**80%**	90%	90%	90%	102%	90%

Satisfaction:

Outcome Measures	Goal	FY 2007		FY 2008		FY 2009*	
Consumer Satisfaction							
1. Satisfaction of person served as measured by responses to the patient satisfaction survey at discharge	≥ 90% responses "Agree" or "Strongly Agree" with statements indicating satisfaction	98%	90%	98%	90%	98% Q1 & Q2	90%
2. Satisfaction of person served as measured by the 3 month post-discharge *MedTel* survey	≥ 90% responses as "satisfied" or "very satisfied"	100%	90%	96%	90%	100% Q1 & Q2	90%
3. Satsifaction of perso ns served with the overall SCI System of Care as expressed in national SHEP scores (see below)	> VA Average for overall satisfaction and for all measured domains	75.0%	70.0%	92.9%	74.2%	NA	NA

# SCI System of Care Satisfaction Data (SHEP survey)

SHEP surveys are mailed to a random sample of patients each year.

CHART 1: The SHEP survey includes a single question for Overall Quality, which asks: "Overall, how would you rate the quality of care you received – Poor, fair, good, very good, or excellent?" Averaged scores for each SCI Center are the percent of patients who responded "very good" or "excellent," out of all patients who respond. While there is variation in the number of responses of persons served in the SCI System of Care from year to year, the data for Boston in the chart below is based on an average of ~ 40 responses per year during the period of FY 2002-2008 (the most recent data available).

CHART 2: The VHA has nine core Veterans Healthcare Service Standards (VHSS): Access, Coordination, Courtesy, Education/Information, Emotional Support, Involvement of Family and Friends, Physical Comfort, Preferences, and Transition. VHSS scores for each of these standards are averaged from responses to 3 to 6 component questions in the SHEP survey. The following chart provides comparative data for each VHSS domain, and the responses to each of the component questions that were counted as "satisfied." The average percent of satisfied responses are shown for the VA Boston SCI System of Care and for the SCI National average. These averaged VHSS scores for each SCI Center have been weighted and adjusted for age and health status. The SCI National average shown here represents the average of all of the SCI center patients

The VA Boston SCI System of Care compares favorably with other VA SCI Centers in the item for overall quality of care (Chart 1) and was significantly higher than the VA SCI Center average for each SHEP VHSS domain in the most recent comparative two-year data available (Chart 2)

CHART 1

SHEP - VHSS Overall Quality scores

CHART 2

SHEP VHSS scores - combined FY07 and FY08
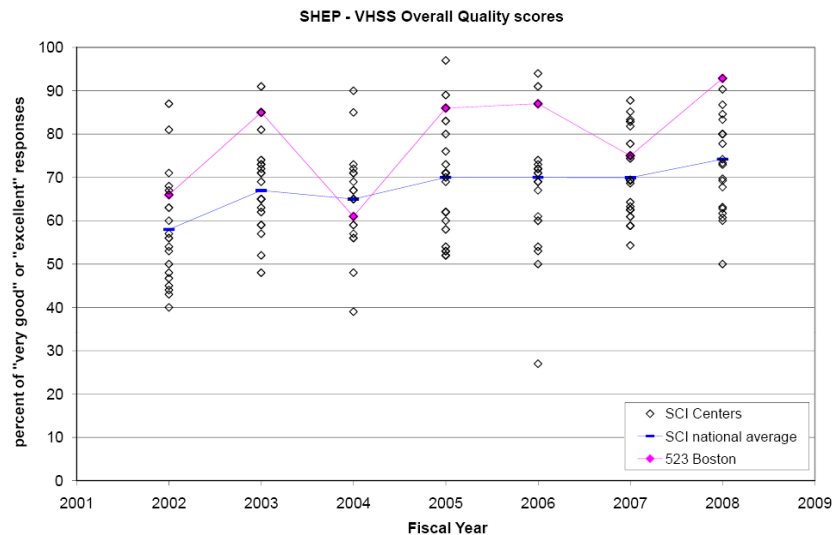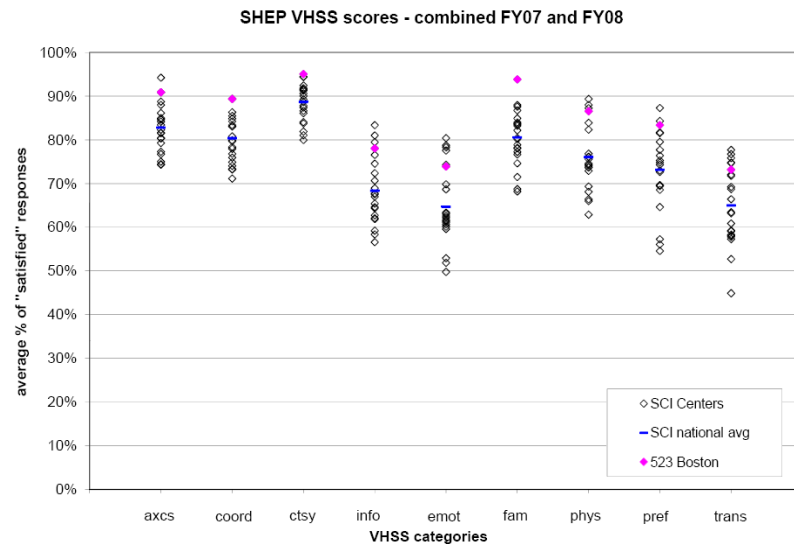
Post-inpatient (Outpatient and Home-Care) SCI Program Outcomes

Effectiveness:

Outcome Measures	Goal	FY 2007		FY 2008		FY 2009*	
Effectiveness		VABHS	Benchmark	VABHS	Benchmark	VABHS	Benchmark
1. % of persons served in the SCI System of Care who are able to live in a non-institutional/ community setting with support from Outpatient and/or Home care program	≥ 90%	94%	90%	93%	90%	NA	90%
2. Community participation of persons served in the post-inpatient programs as measured by CHART[#] scores	VABHS performance ≥ Model SCI Systems benchmark***	See graph (no patient data for Low tetraplegia group)	→	→	→	→	→
3. % of External peer reviewed (EPRP) National SCI Performance Measures for health promotion and disease prevention in Fully Satisfactory or Exceptional range in persons served in the outpatient programs	VABHS performance ≥ VA national average	100%	78%	100%	88%	88%	75%
4. Life satisfaction of persons served in the post-inpatient programs as measured by scores on the Diener Satisfaction With Life Scale (SWLS)	VABHS performance ≥ Model SCI Systems benchmark***	Hi-Tetra **17** Lo-Tetra 22.5 Para 21 Asia D 30	Hi-Tetra 17.6 Lo-Tetra 19.1 Para 20.1 Asia D 21.1	Hi-Tetra 20 Lo-Tetra 24.5 Para **6** Asia D **18**	Hi-Tetra 17.6 Lo-Tetra 19.1 Para 20.1 Asia D 21.1	Hi-Tetra NA Lo-Tetra 28.5 Para 29 Asia D 25	Hi-Tetra 17.6 Lo-Tetra 19.1 Para 20.1 Asia D 21.1

– CHART score is a new measure for FY 09, and the current small numbers in each impairment group limit the current meaningfulness of the data. Diener SWLS score data is aggregate of FY 07-09 ([#]CHART= Craig Handicap Assessment and Reporting Technique, a validated tool to assess community participation after SCI)

– CHART and Diener SWLS scores represent baseline data at 90-day post-inpatient follow-up. We plan to collect longitudinal data at periodic intervals to assess progress at the individual person served level as well as a programmatic measure of effectiveness of the post-inpatient component of our SCI System of Care
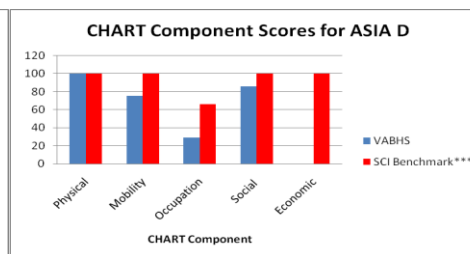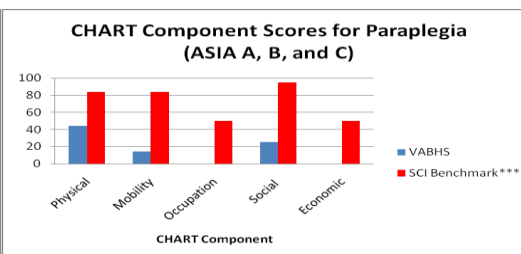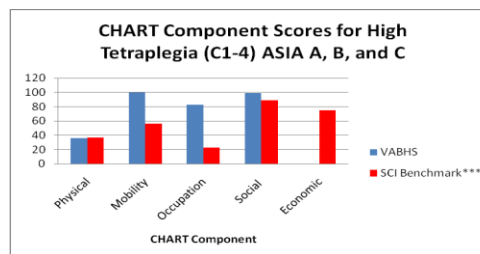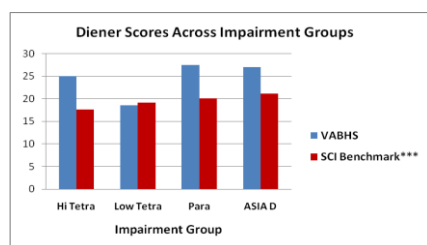
Post-inpatient (Outpatient and Home-Care) SCI Program Outcomes (continued)

Outcome Measures	Goal	FY 2007		FY 2008		FY 2009*	
Efficiency							
1.Missed opportunities (includes appointments cancelled by patient or the program after appointment date and time) for outpatient appointments	< 10% of outpatient appointments	9.07%	10%	**14.4%**	10%	**17.11%**	10%
2. Missed opportunities for home-care appointments	< 10% of home-care appointments	1.38%	10%	4.3%	10%	5.98%	10%
Access							
1. % Outpatient appointments within 30 days of desired date (New C = new patient create date, New D = new patient desired date, Estab = established patient desired date)	> 95%	99.5%	95%	99.7%	95%	99.6%	95%
2. Number of unique persons served in the home-care program and average daily census for the program	Increase by >5% each year	Unique Pts 72 ADC 30.7	NA NA	Unique Pts 88 ADC 33.3	Pts +22% ADC +8%	Unique Pts 70[#] ADC 52 ([#]Q1 & Q2 only)	Pts NA ADC +56%
Satisfaction of persons served							
1. Satisfaction of person served as measured by responses to the Outpatient Clinic satisfaction survey	> 90% responses "Agree" or "Strongly Agree" with statements indicating satisfaction	95%	90%	99%	90%	97% Q1 & Q2	90%
2. Satisfaction of person served as measured by responses to SCI Home Care satisfaction survey	> 90% responses "Agree" or "Strongly Agree" with statements indicating satisfaction	100%	90%	100%	90%	100% Q1 & Q2	90%
Stakeholder Satisfaction/Feedback							
1. Responsiveness to stakeholder feedback as measured by responses to PVA survey recommendations regarding Outpatient/ Home care component of SCI System of Care	100% of recommendations in PVA survey report are followed-up and addressed appropriately	100%	100%	100%	100%	NA	100%